

DETAILED ACTION

Acknowledgement of Papers Received: Amendment/Response dated 3/11/11.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 38-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over the disclosures of Midha et al WO 00/59479 hereafter '479 in view of by Percel et al US 2001/0046964.

The '479 patent discloses a pulsatile delivery composition comprising an immediate release components comprising an uncoated drug pellet (page 7, lin. 17-22, page 9, lin. 5-20); a first coated pellet comprising the same drug and pH dependent polymers and a second pellet comprising water insoluble polymers (page 8, lin. 8-31). The pH dependent polymers include shellac, and polyvinyl acetate phthalate (page 8, lin. 20-24). The water insoluble polymers include ethylcellulose ethyl cellulose and cellulose acetate (page 8, lin. 10-15). The second

coated pellet is designed for colonic release, meaning the pellets release in the intestine at pH above 70 (page 8, lin. 28-30). The composition can be a tablet or capsule comprising the three populations of drug particles (page 10, line 12-20). The drugs include a wide range of compounds including bupropion (page 13, line 20). Each portion comprises up to 100 mg of the drug (page 12, lin. 8-15). The second pellet is present in a concentration of half that of the first pellet (claim 9), meeting the ratio limitations of the instant claims. The formulation comprises tableting excipients such as diluents, binders and lubricants (page 11, lin. 15-23; page 11, lin. 1-29). The tablet formulation can comprise approximately 40% of a solid pharmaceutically acceptable tablet excipient such as microcrystalline cellulose (Example 1 and 2).

The reference is silent to the specific release kinetics of the instant claims; however it is the position of the Examiner that such limitations are dependent from the compositional components and specifically the disposition of polymers within the formulation. As such any dosage form with the same disposition of polymers would have the same release kinetics. As discussed above the dosage form of the '479 patent discloses an oral capsule or tablet comprising an immediate release portion comprising uncoated drug particles, a first coated pellet comprising enteric polymers and a second coated pellet comprising water insoluble polymers that release the drug content in the colon. The enteric and water insoluble polymers are the same as the instant claims, with the ratio of the first and second coated pellets comparable to the ratio of the instant claims. For these reasons it is the position of the Examiner that since the dosage form of the '479 patent discloses the same dosage form, with the same drug with the same disposition of polymers would have the same release kinetics as the instant claims. A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical

chemical structure, the properties applicant discloses and/or claims are necessarily present. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

The reference does not exemplify a bupropion formulation; however bupropion is listed as a possible active agent and bupropion is well known as a drug compound useful in pulsatile dosage forms. This can be seen in the '964 publication. The '964 publication discloses a pulsatile bupropion formulation comprising an immediate release portion and a coated sustained release portion (abstract, claims). It would have been obvious to substitute bupropion into the formulation of the '479 patent since the '964 publication discloses its use in pulsatile controlled release formulations.

With these things in mind it would have been obvious to follow the teachings and disclosures of the '479 patent to arrive at the formulation of the instant claims. The dosage form of the '479 patent discloses a capsule or tablet formulation of bupropion comprising an immediate release, enteric and pH independent portion that releases in the lower gastrointestinal tract. The dosage form comprising three separate portions that are combined into a singular dosage form that comprises the same coating polymers and tableting excipients, present in comparable concentrations as the instant claims. It would have been obvious to formulate a bupropion dosage form as seen in the '964 application, since bupropion is known to be delivered in a pulsatile format. One of ordinary skill in the art would have been motivated to follow the disclosures and teachings of the '479 patent in order to arrive at a pulsatile dosage form with reduced risk of abuse.

Response to Arguments

Applicant's arguments filed 3/11/11 have been fully considered but they are not persuasive. Applicant argues that:

The combination of the Midha and Percel patents do not obviate the instant claims since they do not disclose a once-a-day bupropion tablet or capsule with the coating and *in vivo* release of the instant claims.

Regarding this argument it remains the position of the Examiner that the combination of prior art continues to obviate the instant claims. First Applicant argues that the Midha patent does not disclose the use of bupropion in the pulsatile formulation, the ratio of modified release pellets or the concentration of bupropion needed to achieve the recited *in vivo* release profile. However it remains the position of the Examiner the Midha in combination with Percel continues to obviate the instant claims. First the Midha patent discloses a controlled release tablet comprising the separate and distinct release portions comprising an uncoated immediate release portion, a first coated bead and a third coated bead meeting the limitations a-c of claim 38. The Midha patent is suggestive of bupropion as the primary active agent, where the active agent is present in a concentration up to 10 mg meeting the limitations of claim 38. The first and second pellets are present in a ratio of 50:50 (claim 9) meeting the limitations of claim 38. Further the third pellet is coated with enteric polymer for colonic release (lower intestine) and the third pellet is coated with water insoluble polymers. These polymers are identical to the polymers recited in claims 42 and 43. Regarding the *in vivo* release rate, Applicant agrees with the Examiner that the compositional components contribute to and cause the *in vivo* rate of the instant claims. As such it remains the position of the Examiner that since the Midha patent provides a similar structure, drug concentration, ratio of first pellet to second pellet all within the limits of the

instant claims, the formulation of the Midha patent would be capsule of the same *in vivo* release kinetics. It remains the position of the Examiner it would have been obvious to substitute the bupropion of the Percel patent into the formulation of the Midha following the suggestion that bupropion could also be included in the pulsatile formulation. The substitution would have been obvious since the Percel patent disclose bupropion in a controlled release formulation comprising particles with an enteric coating. Each patent provides similar components. It would have been obvious to formulate a bupropion dosage form as seen in the '964 application, since bupropion is known to be delivered in a pulsatile format. One of ordinary skill in the art would have been motivated to follow the disclosures and teachings of the '479 patent in order to arrive at a pulsatile dosage form with reduced risk of abuse. For these reasons the claims remain obviated.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICAH-PAUL YOUNG whose telephone number is (571)272-0608. The examiner can normally be reached on Monday-Thursday 7:00-5:30; every Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Hartley can be reached on 571-272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MICHAEL G. HARTLEY/
Supervisory Patent Examiner, Art Unit 1618

/MICAH-PAUL YOUNG/
Examiner, Art Unit 1618